

Bayou Nezpique (Subsegment 050301), Louisiana,
Draft TMDL for Dissolved Lead

Prepared for:

Louisiana Department of Environmental Quality, Water Quality Assessment Division,
Total Maximum Daily Load Program

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EXECUTIVE SUMMARY

Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (Title 40 of the *Code of Federal Regulations* Part 130) require states to identify waterbodies that are not meeting water quality standards and to develop total maximum daily loads (TMDLs) of pollutants for those waterbodies. A TMDL establishes the amount of a pollutant that a waterbody can assimilate without exceeding its water quality standard for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and nonpoint sources in order to restore and maintain the quality of the state's water resources (USEPA 1991).

A TMDL for a given pollutant and waterbody is composed of the sum of individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background levels. In addition, the TMDL must include an implicit or explicit margin of safety (MOS) to account for the uncertainty in the relationship between pollutant loads and the quality of the receiving waterbody. The TMDL components are illustrated using the following equation:

$$TMDL = \sum WLAs + \sum LAs + MOS.$$

This dissolved lead TMDL has been developed for Bayou Nezpique, in the Mermentau River Basin in southwestern Louisiana. Bayou Nezpique runs 65 miles from its headwaters to the Mermentau River and includes intermittent portions of Beaver Creek.

For the purpose of TMDL development, the dissolved lead numerical criterion was calculated using the freshwater chronic value for aquatic life protection calculated on the basis of the average hardness values from 2007 at Station 651 (Bayou Nezpique east of Jennings, Louisiana). The dissolved lead numerical criterion for Bayou Nezpique was determined to be 0.87 microgram per liter. For the purpose of this TMDL, dissolved lead was considered to be a conservative parameter. Using the 7Q10 flow at the end of subsegment 050301 and the calculated lead criterion, a TMDL of 0.00213 pound per day was calculated. The TMDL was then allocated to its WLA, MOS, and LA components.

1. Introduction

Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's (EPA's) Water Quality Planning and Management Regulations (Title 40 of the *Code of Federal Regulations* [CFR] Part 130) require states to develop total maximum daily loads (TMDLs) of pollutants for waterbodies that are not supporting their designated uses, even if pollutant sources have implemented technology-based controls. A TMDL establishes the maximum allowable load (mass per unit of time) of a pollutant that a waterbody is able to assimilate and still support its designated uses. The maximum allowable load is determined on the basis of the relationship between pollutant sources and in-stream water quality. A TMDL provides the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and nonpoint sources to restore and maintain the quality of the state's water resources (USEPA 1991).

A TMDL for a given pollutant and waterbody is composed of the sum of individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background levels. In addition, the TMDL must include an implicit or explicit margin of safety (MOS) to account for the uncertainty in the relationship between pollutant loads and the quality of the receiving waterbody. The TMDL components are illustrated using the following equation:

$$TMDL = \sum WLAs + \sum LAs + MOS.$$

This dissolved lead TMDL has been developed for Bayou Nezpique, in the Mermentau River Basin in southwestern Louisiana. Bayou Nezpique runs 65 miles from its headwaters to the Mermentau River and includes intermittent portions of Beaver Creek (Figure 1-1).

The Louisiana Department of Environmental Quality (LDEQ) placed Bayou Nezpique on the state's 1996 303(d) list and identified it as not supporting its designated use of primary contact recreation and fish and wildlife propagation because of organic enrichment/low dissolved oxygen, pathogen indicators, suspended solids, and turbidity. The suspected sources were minor municipal point sources, non-irrigated crop production, irrigated crop production, petroleum activities, and septic tanks (LDEQ 1996). LDEQ placed the bayou on the state's 303(d) list in 1998 and identified it as not supporting its designated use of primary contact recreation and fish and wildlife propagation because of organic enrichment/low dissolved oxygen, pathogen indicators, and metals (copper and lead). The suspected sources were industrial point sources—minor industrial point sources, municipal point sources—minor municipal point sources, agriculture—non-irrigated crop production and irrigated crop production, and silviculture—forest management, natural sources and unknown sources (LDEQ 1998). LDEQ placed the bayou on the state's 303(d) list in 2000 and identified it as not supporting its designated use of primary contact recreation and fish and wildlife propagation because of organic enrichment/low dissolved oxygen and pathogens. The suspected sources were municipal point sources and agriculture (LDEQ 2001). LDEQ placed the bayou on the state's 303(d) list in 2002 and identified it as not supporting its designated use of primary contact recreation and fish and wildlife propagation because of sedimentation/siltation, turbidity, dissolved oxygen, total suspended solids, and total fecal coliform (LDEQ 2003). The state's 2004, 2006, and draft 2008 editions of the *Louisiana Water Quality Inventory: Integrated Report (Integrated Report)* list Bayou Nezpique as not supporting its designated use of fish and wildlife propagation because of nitrate/nitrite, low dissolved oxygen, total phosphorus, total suspended solids, turbidity, and sedimentation/siltation from irrigated and non-irrigated crop production (LDEQ 2005, 2007a, 2008). The 2004, 2006, and draft 2008 *Integrated Reports* list the bayou as not supporting the designated use of primary contact recreation because of total fecal coliform from municipal point source discharges (LDEQ 2005, 2007a, 2008). The draft 2008 *Integrated Report* also indicates that the subsegment is not supporting

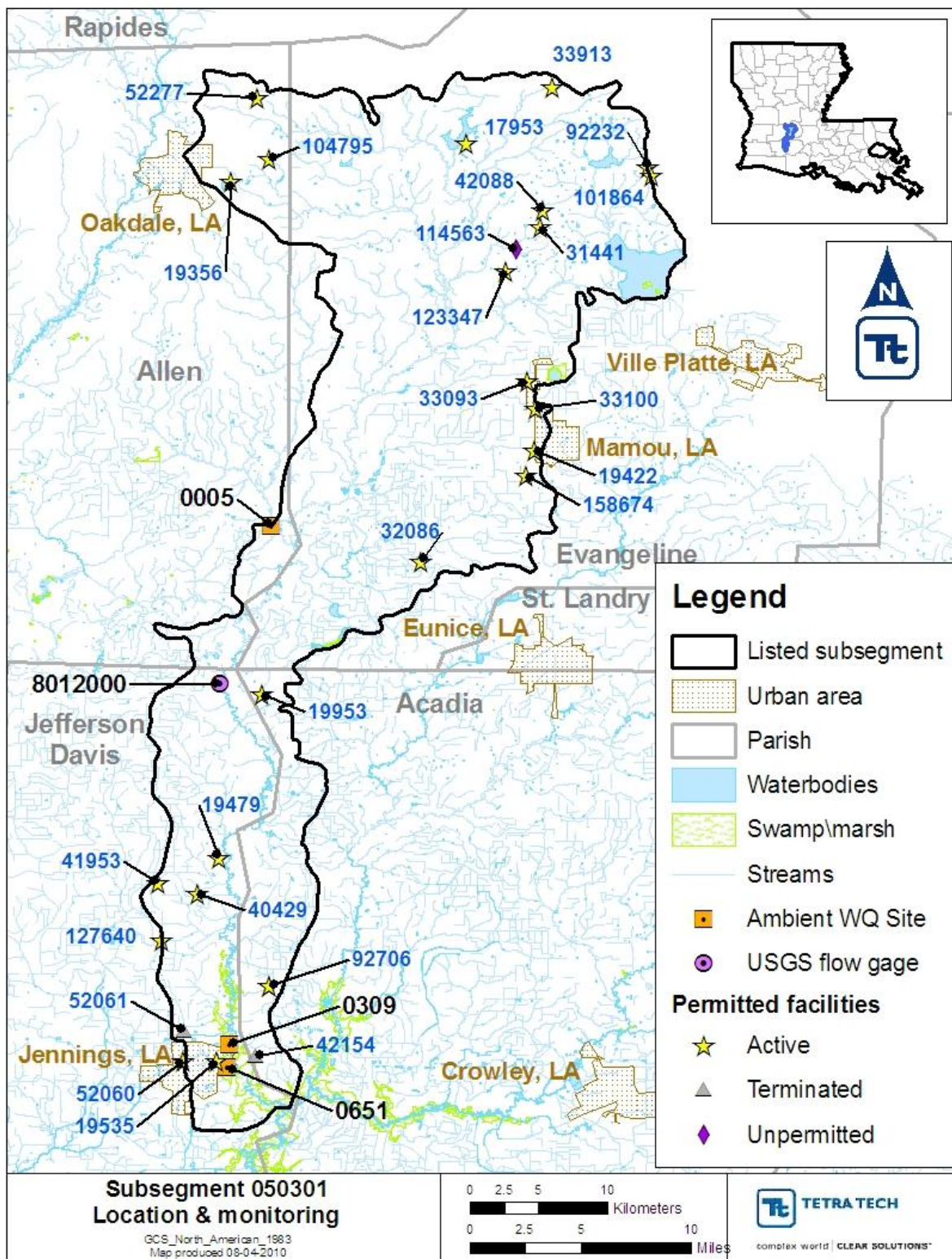


Figure 1-1. Subsegment 050301 (Bayou Nezpique) location and monitoring.

its designated use of fish and wildlife propagation due to total dissolved solids from agricultural sources, mercury in fish from atmospheric deposition and unknown sources, and lead from unknown sources (LDEQ 2008).

2. Study Area Description

2.1 Mermentau River Basin—Bayou Nezpique

This dissolved lead TMDL has been developed for Bayou Nezpique, in the Mermentau River Basin in southwestern Louisiana (Figure 1-1). Bayou Nezpique flows for 65 miles through the Mermentau River Basin, extending from its northernmost extent to the headwaters of the Mermentau River. The headwaters of the Bayou Nezpique are forested, and it has a forested riparian buffer that extends along the entire length of the bayou. The Bayou Nezpique watershed actually contains several smaller watersheds that also have water quality data for them. The watersheds include Bayou Blue and Castor Creek. The headwaters of Bayou Nezpique include the intermittent portion of Beaver Creek (LDEQ 2009a).

The Bayou Nezpique flows through the Mermentau Basin in southwestern Louisiana. That is the prairie region of the state where rice and crawfish farms have been a dominant part of the landscape for many generations. The upper portion of the Mermentau Basin is forested, but the majority of the basin is in agricultural production except for the marshes that extend from the southern reaches of the basin to the Gulf of Mexico (LDEQ 2009a). The Mermentau River Basin is bounded on the north and east by the Vermilion–Teche River Basin, on the west by the Calcasieu River Basin, and on the south by the Gulf of Mexico (LDEQ 1998).

Land use data from the 2001 National Land Cover Database (NLCD) were used (shown in Table 2-1 and Figure 2-1). NLCD 2001 is a land-cover database composed of land cover, impervious surface, and canopy density data. NLCD 2001 uses improved classification algorithms, which result in data with more precise rendering of spatial boundaries between the 16 classes than those obtained using NLCD 1992 (USEPA 2007).

Table 2-1. Subsegment 050301 land use (NLCD 2001)

Land use	Percent
Open water	0.74%
Developed	6.19%
Barren land	0.04%
Forest	13.52%
Grass/shrub	9.78%
Pasture/hay	8.04%
Cultivated crops	31.00%
Woody wetlands	29.10%
Emergent herbaceous wetlands	1.59%

Source: USEPA 2007

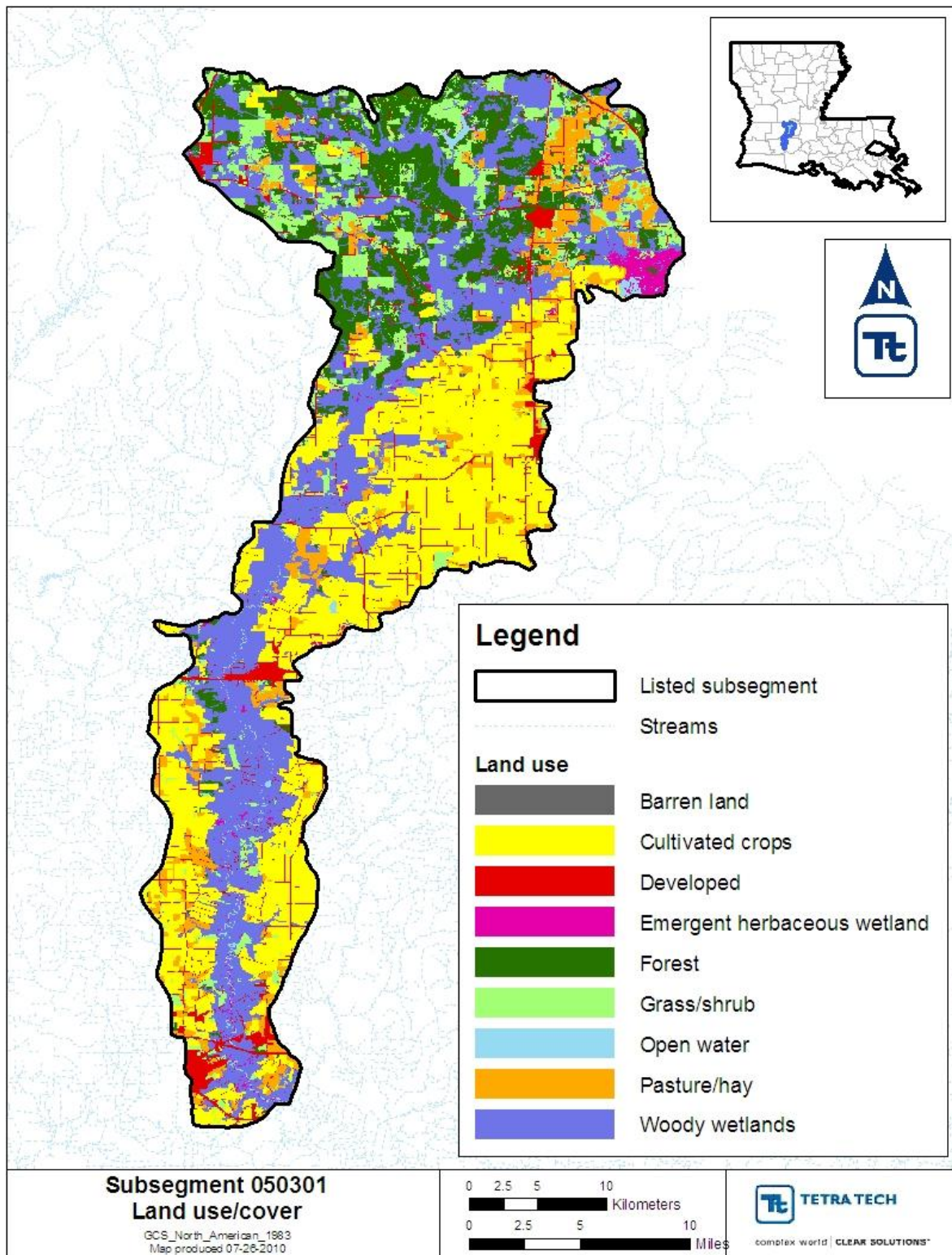


Figure 2-1. Land use in subsegment 050301 (Bayou Nezpique).

2.2 Water Quality Data

One water quality station is on Bayou Nezpique with lead data collected since 2005. Station 651 (Bayou Nezpique east of Jennings, Louisiana) had four dissolved lead observations collected since 2005. Appendix A contains the raw water quality data. This subsegment has a long history with three stations. The lead data from station 651 containing recent data were plotted over time for subsegment 050301 (Figure 2-2). No distinct seasonal trends or patterns can be seen in the water quality data.

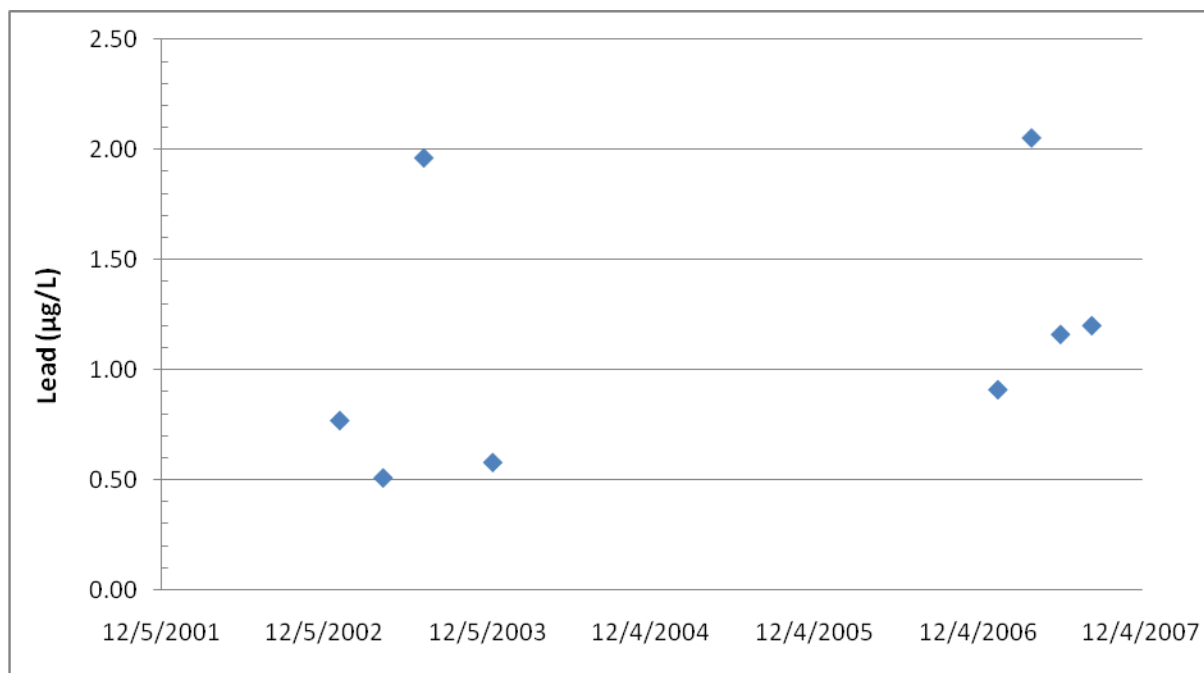


Figure 2-2. Dissolved lead data at station 651.

2.3 Water Quality Standards and Criteria

The designated uses for subsegment 050301 are primary and secondary contact recreation, propagation of fish and wildlife, and agriculture. Primary contact recreation consists of any recreational or other water contact activity involving prolonged or regular full-body contact with the water and in which the probability of ingesting appreciable amounts of water is considerable. Examples of that type of water use are swimming, water skiing, and diving (LDEQ 2007b). Secondary contact recreation consists of any recreational or other water contact activity in which prolonged or regular full-body contact with the water is either incidental or accidental, and the probability of ingesting appreciable amounts of water is minimal. Examples of that type of water use are fishing, wading, and boating (LDEQ 2007b). The criteria for protection of aquatic life are based on acute and chronic concentrations in fresh and marine waters and are developed primarily for attainment of the fish and wildlife propagation use.

The aquatic life criterion was used for this TMDL along with the 7Q10 flow for the waterbody. Metals criteria are based on hardness concentrations in ambient waters. The criterion was calculated using the freshwater chronic criteria equation (LDEQ 2009b):

$$\text{Criterion} = e^{((1.2730 \times (\ln(\text{hardness}))) - 4.7050)} \times (1.46203 - (0.145712 \times \ln(\text{hardness})))$$

Hardness concentrations from the past 5 years at station 651 were averaged and used in calculating the lead criteria. The average hardness concentration for the subsegment 050301 is 38.28 milligrams per liter (mg/L). The applicable chronic lead criterion, therefore, is 0.87 µg/L. The criterion applies at all times. The available dissolved lead data and the sample exceedances are shown in Appendix A.

The Louisiana water quality standards also include an antidegradation policy (*Louisiana Administrative Code* Title 33, Part IX, Section 1109.A), which states that state waters exhibiting high water quality should be maintained at that high level of water quality. If that is not possible, water quality of a level that supports the designated uses of the waterbody should be maintained. The designated uses of a waterbody may be changed to allow a lower level of water quality only through a use attainability study. LDEQ has developed this TMDL to be consistent with the state's antidegradation policy (LDEQ 2000).

2.4 Flow

U.S. Geological Survey (USGS) flow monitoring gage 08012000 (Bayou Nezpique near Basile, Louisiana) is on subsegment 050301. The critical low flow (7Q10) is 0.70 cubic feet per second (cfs) on the basis of flow records from 1938 through 1999 (Ensminger and Wright 2003).

2.5 Identification of Sources

Louisiana's draft 2008 *Integrated Report* does not list subsegment 050301 as impaired because of lead. However, water quality data indicate an impairment of the fish and wildlife propagation designated use. LDEQ has established a group of reference streams throughout the state that exhibit near-pristine characteristics and have no man-made sources discharging or contributing runoff into them. Two of the reference streams in the Calcasieu Basin—Six Mile Creek and Beckwith Creek—were found as not supporting the lead criteria during the 2000 305(b) assessment. Therefore, LDEQ concluded that natural background loading is the dominant source of lead in other waterbodies in the state (LDEQ 2004).

Information on point source dischargers in the subsegment was obtained from LDEQ files. According to the LDEQ discharger database, 25 point sources are currently discharging into subsegment 050301 and two permits were previously terminated (Table 2-2).

Table 2-2. Summary of LPDES permits in subsegment 050301

AI #	Permit #	Outfall	Facility name	Exp. date	Facility type	Outfall type	Receiving waterbody
19422	LA0020125	001	Mamou, Town of - WWTP - Incinerator	5/21/2011	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Grand Louis Bayou to Bayou Nezpique
19356	LA0033430	001	Oakdale, City of - WWTP	12/16/2014	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Ditch to Beaver Creek to Boggy Bayou to East Fork Bayou Nezpique
19535	LA0041769	001	Jennings, City of - Wastewater Treatment Facility	6/19/2014	Municipal Agency	treated sanitary wastewater	Unnamed stream to Bayou Nezpique
19953	LA0044865	001	Basile, Town of - WWTP Bearcat Road	11/8/2011	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Ditch to Bayou Nezpique
31441	LA0079057	001	Pine Prairie, Village of - WWTP	6/5/2013	General Agency Interest	treated sanitary wastewater	Local drainage to Boggy Bayou to East Fork Bayou Nezpique
52277	LA0106585	001	IESI Corp - Timberlane Landfill	7/13/2014	Electric, Gas, and Sanitary Services	treated sanitary wastewater, treated landfill wastewater, stormwater	Cypress Creek to Boggy Bayou to Bayou Nezpique
		002				non-contact stormwater	

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AI #	Permit #	Outfall	Facility name	Exp. date	Facility type	Outfall type	Receiving waterbody
		101				treated sanitary wastewater	
		201				stormwater	
		301				treated landfill wastewater and contact stormwater	
33093	LA0109452	001	Evangeline Parish Police Jury - Reddell STP	5/10/2011	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Ditch to Manwell Gully to East Fork Bayou Nezpique, to Bayou Nezpique
104795	LA0118672	001	Natural Advantage	12/17/2009	Chemicals and Allied Products	Lab/production wastewater	Local drainage to Morris Branch Creek to Beaver Creek to Boggy Bayou
19479	LAG380014	001	Louisiana Water Co - Crowley Water Plant	12/17/2009	Electric, Gas, and Sanitary Services	wastewater (backwash water and blowdown sludge)	Ditch to Bayou Blanc to Bayou Plaquemine to Mermentau River
52060	LAG380058	002	Jennings, City of - Water Plant	1/13/2010	Electric, Gas, and Sanitary Services	filter backwash	local drainage - Bayou Nezpique
92706	LAG531278	001	Bayou Cove Peaking Power LLC NRG - S Central Operation - Bayou Cove Peaking Power Plant	11/8/2012	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Local drainage to Bayou Nezpique
92232	LAG531355	001	Hester Heath Elementary School	11/30/2012	Educational Services	treated sanitary wastewater	unnamed ditch to Bayou Nezpique to Miller's Lake
32086	LAG531537	001	Texas Gas Transmission LLC - Mamou Compressor Station	11/8/2012	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Ditch to Coulee Valentine to Bayou Duralde
		002				stormwater	
		003				stormwater	
40429	LAG540033	001	Academy Mobile Village	6/5/2013	General Agency Interest	treated sanitary wastewater	Grande Canal to Bayou Nezpique
17953	LAG540293	001	Evangeline Parish Police Jury - Crooked Creek Recreational Area	6/5/2013	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Bayou Nezpique
41953	LAG540397	001	Hathaway High School	1/7/2013	Educational Services	treated sanitary wastewater	Grande Canal to Bayou Nezpique
101864	LAG541109	001	Bayou Chicot Elementary School	6/30/2013	Educational Services	treated sanitary wastewater	unnamed ditch to unnamed stream to Chicot Lake
127640	LAG541389	001	Hathaway Village Mobile Home Park	6/5/2013	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Ditch to unnamed canal to Bayou Nezpique
33913	LAG560140	001	Turkey Creek Village of - Municipal Treatment Plant	7/11/2008	General Agency Interest	treated sanitary wastewater	Highway ditch to Boggy Bayou to Bayou Nezpique
42088	LAG570174	001	LA Corrections Services Inc - Pine Prairie Correctional Facility	4/23/2014	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Unnamed ditch to Bayou Nezpique to Miller Lake
33100	LAG570259	001	Plaisance Development Corp - N Mamou Subdivision	3/15/2009 (reapplied)	Electric, Gas, and Sanitary Services	treated sanitary wastewater	Ditch to unnamed canal to Grand Louis Bayou into Bayou Nezpique
158674	LAR05P009		Rolling Frito-Lay Sales LP - Mamou Bin	4/30/2011	Motor Freight Transportation and Warehousing	MSGP - stormwater	Ditch to Bayou Black
92706	LAR10B695		Bayou Cove Peaking Power LLC NRG - S Central Operation - Bayou Cove Peaking Power Plant	10/1/2014	Electric, Gas, and Sanitary Services	stormwater CGP	Local drainage to Bayou Nezpique
123347	LAR10D153		Pine Prairie Energy Center LLC - Pine Prairie Energy Center	10/1/2014	Electric, Gas, and Sanitary Services	stormwater CGP	unnamed tributaries to the east fork of Bayou Nezpique
114563	LAU003097	001	CL&M #2 & 18 Production Facility - Pine Prairie Field	n/a ^a	Oil and Gas Extraction		

AI #	Permit #	Outfall	Facility name	Exp. date	Facility type	Outfall type	Receiving waterbody
42154	LAG560109	001	LADOTD - Bayou Nezipique Rest Area	Terminated 1/4/2006	State Agency		
52061	LA0110566	001	Production Wireline Service	Requested termination 3/21/2004	Oil and Gas Extraction		

^a This facility is not permitted.

3. TMDL Load Calculations

A TMDL is the total amount of a pollutant that can be assimilated by the receiving waterbody while still achieving water quality standards. In TMDL development, allowable loadings from all pollutant sources that cumulatively amount to no more than the TMDL must be established and thereby provide the basis for establishing water quality-based controls.

A TMDL for a given pollutant and waterbody is composed of the sum of individual WLAs for point sources, LAs for nonpoint sources and natural background levels. In addition, the TMDL must include an implicit or explicit MOS to account for the uncertainty in the relationship between pollutant loads and the quality of the receiving waterbody. The TMDL components are illustrated in the following equation:

$$TMDL = \sum WLAs + \sum LAs + MOS.$$

TMDLs are typically expressed as a mass loading (e.g., pounds per day).

Both section 303(d) of the Clean Water Act and the regulations at 40 CFR 130.7 require that TMDLs include an MOS to account for uncertainty in available data or in the actual effect that controls will have on the loading reductions and receiving water quality. The MOS may be expressed explicitly as unallocated assimilative capacity or implicitly using conservative assumptions in establishing the TMDL. For a more detailed discussion of the MOS, see Section 3.4.

3.1 Load Determination for Bayou Nezpique (050301)

The sampling events used as the basis for this TMDL were performed to meet the needs of the state to develop the *Integrated Report*, which includes the biennial section 305(b) report (*Water Quality Inventory*) and the section 303(d) list of impaired waters. The data are adequate for a conservative TMDL according to the assumption that no fate and transport mechanisms are present in the waterbodies. Data gathering did not include any flow measurements, any hardness measurements, nor any upstream sampling and measurements for background conditions. Without such data, fate and transport modeling and calculating reductions required from current loads are not possible.

Calculating the TMDL

Dissolved lead was treated as a conservative parameter. The following equation was used to calculate the dissolved lead TMDL, and the TMDL calculations are shown further below.

$$TMDL \text{ (lbs/day)} = (\text{lead criterion [mg/L]}) \times (\text{critical flow [mgd]}) \times 8.345$$

where 8.345 is a conversion factor. Only observed data from during 2005 and after were used in this TMDL. The critical flow from USGS gage 08012000 was area weighted to obtain the flow for this drainage area for subsegment 050301, which is 614 square miles, including subsegments 050303 and 050304. The drainage area of the USGS gage is 527 square miles making the critical flow 0.82 cfs. To determine just the contributions of subsegment 050301, the critical flows from the contributing subsegments were subtracted out. These critical flows were 0.10 cfs for subsegment 050303 and

0.03 cfs for subsegment 050304 (Tetra Tech 2010a, 2010b). The resulting critical flow as 0.68 cfs or 0.44 mgd. The city of Jennings discharges up to 2.5 mgd near the outflow of the subsegment. Adding that flow to the critical flow results in a flow of 2.94 mgd.

$$\begin{aligned}\text{Lead criterion} &= 0.87 \mu\text{g/L} = 0.00087 \text{ mg/L} \\ \text{Critical flow (7Q10)} &= 2.94 \text{ mgd} \\ \text{TMDL} &= (0.00087 \text{ mg/L}) \times (2.94 \text{ mgd}) \times 8.345 = 0.0213 \text{ lb/day}\end{aligned}$$

3.2 Wasteload Allocation (WLA)

The WLA portion of the TMDL equation is the total loading of a pollutant that is assigned to point sources. The point sources in subsegment 050301 include sanitary and industrial wastewater and stormwater. Stormwater loading is usually based on average annual rainfall, while the TMDL is calculated at critical low (7Q10) flow. Since these two conditions are not compatible, LDEQ assumes that stormwater runoff is zero when developing a TMDL at critical low flow. All of the individual point source facilities identified in Section 2.5 are permitted to discharge to subsegment 050301. For this TMDL, which is being developed at 7Q10 flow, facility stormwater flows should be assumed to be zero.

WLAs were calculated at each outfall for all permitted point sources in subsegment 050301 (Table 3-1). The equation for WLA calculation is

$$\text{WLA (lbs/day)} = (\text{limit [mg/L]}) \times (\text{flow [gpd]}) \times 0.000008345$$

where 0.000008345 is a conversion factor. The WLA is 0.0 lb/day for lead.

Table 3-1. WLA summary for subsegment 050301

AI #	Permit #	Outfall	Facility name	Outfall type	Flow type	Flow (gpd)	Limit type	Total lead (μg/L)	Total lead (lb/d)	Dissolved lead (μg/L)	Dissolved lead (lb/d)
19422	LA0020125	001	Mamou, Town of - WWTP - Incinerator	treated sanitary wastewater	design	600,000	none		0		0
19356	LA0033430	001	Oakdale, City of - WWTP	treated sanitary wastewater	design	1,460,000	none		0		0
19535	LA0041769	001	Jennings, City of - Wastewater Treatment Facility	treated sanitary wastewater	design	2,500,000	none		0		0
19953	LA0044865	001	Basile, Town of - WWTP Bearcat Road	treated sanitary wastewater	design	500,000	none		0		0
31441	LA0079057	001	Pine Prairie, Village of - WWTP	treated sanitary wastewater	design	250,000	none		0		0
52277	LA0106585	001	IESI Corp - Timberlane Landfill	treated sanitary wastewater, treated landfill wastewater, stormwater	expected	315,000	none		0		0
		002		non-contact stormwater	expected	446,000	none		0 ^a		0
		101		treated sanitary wastewater	expected	100	none		0		0
		201		stormwater	expected	290,000	monthly ave	2.4	0 ^a	0.44	0 ^a
		301		treated landfill	expected	315,000	monthly	7	0 ^a	1.30	0 ^a

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AI #	Permit #	Outfall	Facility name	Outfall type	Flow type	Flow (gpd)	Limit type	Total lead (µg/L)	Total lead (lb/d)	Dissolved lead (µg/L)	Dissolved lead (lb/d)
				wastewater and contact stormwater			ave				
33093	LA0109452	001	Evangeline Parish Police Jury - Reddell STP	treated sanitary wastewater	design	68,000	none		0		0
104795	LA0118672	001	Natural Advantage	non-contact cooling water and lab wastewater	expected	2,000	none		0		0
19479	LAG380014	001	Louisiana Water Co - Crowley Water Plant	wastewater (backwash water and blowdown sludge)	DMR average	64,038	none		0		0
52060	LAG380058	002	Jennings, City of - Water Plant	filter backwash	DMR 30-day max	38,154	none		0		0
92706	LAG531278	001	Bayou Cove Peaking Power LLC NRG - S Central Operation - Bayou Cove Peaking Power Plant	treated sanitary wastewater	design	500	none		0		0
92232	LAG531355	001	Hester Heath Elementary School	treated sanitary wastewater	expected	4,040	none		0		0
32086	LAG531537	001	Texas Gas Transmission LLC - Mamou Compressor Station	treated sanitary wastewater	expected	500	none		0		0
		002		stormwater	expected	16,156	none		0 ^a		0 ^a
		003		stormwater	expected	16,156	none		0 ^a		0 ^a
40429	LAG540033	001	Academy Mobile Village	treated sanitary wastewater	expected	13,200	none		0		0
17953	LAG540293	001	Evangeline Parish Police Jury - Crooked Creek Recreational Area	treated sanitary wastewater	DMR 30-day max	13,200	none		0		0
41953	LAG540397	001	Hathaway High School	treated sanitary wastewater	DMR 30-day max	7,453	none		0		0
101864	LAG541109	001	Bayou Chicot Elementary School	treated sanitary wastewater	expected	10,760	none		0		0
127640	LAG541389	001	Hathaway Village Mobile Home Park	treated sanitary wastewater	DMR average	7,000	none		0		0
33913	LAG560140	001	Turkey Creek, Village of - Municipal Treatment Plant	treated sanitary wastewater	DMR 30-day max	24,762	none		0		0
42088	LAG570174	001	LA Corrections Services Inc - Pine Prairie Correctional Facility	treated sanitary wastewater	DMR average	70,276	none		0		0
33100	LAG570259	001	Plaisance Development Corp - N Mamou Subdivision	treated sanitary wastewater	DMR 30-day max	9,900	none		0		0
158674	LAR05P009		Rolling Frito-Lay Sales LP - Mamou Bin	MSGP - stormwater	not avail.		none		0 ^a		0 ^a
92706	LAR10B695		Bayou Cove Peaking Power LLC NRG - S Central Operation - Bayou Cove Peaking Power Plant	stormwater CGP	not avail.		none		0 ^a		0 ^a
123347	LAR10D153		Pine Prairie Energy	stormwater	not avail.		none		0 ^a		0 ^a

AI #	Permit #	Outfall	Facility name	Outfall type	Flow type	Flow (gpd)	Limit type	Total lead (µg/L)	Total lead (lb/d)	Dissolved lead (µg/L)	Dissolved lead (lb/d)
			Center LLC - Pine Prairie Energy Center	CGP							
114563	LAU003097	001	CL&M #2 & 18 Production Facility - Pine Prairie Field		not avail.		n/a		0		0

Notes: n/a = not applicable (facility is not permitted)

^a This TMDL is being developed for critical low-flow conditions (7Q10). Under low-flow conditions, the WLA for all stormwater discharges will be 0.0 lb/d because the flow will be 0.0 mgd. However, existing stormwater permits limits continue to apply to all stormwater discharges.

LPDES permitted discharges without lead effluent limitations have been determined to not be sources of lead. For these dischargers, LDEQ is not providing allocations or permit limits. If at some point in the future, LDEQ determines that any of the discharges may contain lead, wasteload allocations may be provided along with the appropriate permit conditions.

3.3 Seasonal Variability

Because ambient monitoring data indicate that there is little variability of trace metals levels throughout the year, LDEQ has not defined a critical season.

3.4 Margin of Safety (MOS)

The Clean Water Act requires that TMDLs take into consideration an MOS. The MOS is the portion of the pollutant loading reserved to account for any uncertainty in the data. There are two ways to incorporate the MOS. One is to implicitly incorporate it by using conservative model assumptions to develop allocations. The other is to explicitly specify a portion of the TMDL as the MOS and use the remainder for allocations (USEPA 1991). For this TMDL, an explicit MOS of 20 percent was used. The MOS is 0.0043 lb/day.

3.5 Load Allocation (LA)

The LA is the portion of the TMDL assigned to natural background loadings, nonpoint sources, urban runoff, and other anthropogenic sources. The LA was calculated for this TMDL by subtracting the WLA and MOS from the total TMDL. The LA applies strictly to critical, low-flow conditions. LAs were not allocated to separate nonpoint sources because of the lack of available source characterization data. The LAs include natural background sources. LDEQ also recognizes that stormwater may contribute to the lead impairments for subsegment 050301, however, LDEQ cannot provide an allocation for stormwater with a TMDL developed for critical, low-flow conditions.

$$\sum LAs = TMDL - \sum WLAs - MOS$$

$$\sum LAs = 0.0213 - 0 - 0.0043$$

$$\sum LAs = 0.0170 \text{ lb/day}$$

4. Monitoring Plan

LDEQ uses funds provided under section 106 of the Clean Water Act and under the authority of the Louisiana Environmental Quality Act to run a program for monitoring the quality of the state's

surface waters. The LDEQ Surveillance Section collects surface water samples at various locations using appropriate sampling methods and procedures to ensure the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, develop a long-term database for water quality trend analysis, and monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program are used to develop the state's biennial *Water Quality Inventory* and the section 303(d) list of impaired waters. That information is also used to establish priorities for LDEQ's nonpoint source program.

LDEQ has implemented a watershed approach to surface water quality monitoring. Through that approach, the entire state is sampled on a 4-year cycle. Long-term trend monitoring sites at various locations on the larger rivers and Lake Pontchartrain are sampled throughout the 4-year cycle. Sampling is conducted monthly to yield approximately 12 samples per site during each year the site is monitored. Sampling sites are where they are considered representative of the waterbody. Within each basin, all monitored subsegments will be sampled over the year or years specified under each cycle period.

Bayou Nezpique was monitored with the Mermentau River Basin in 2006, 2007, 2008, and 2009. Water quality assessments for the 305(b)/303(d) *Integrated Report* will be conducted for each basin following the last year of its monitoring period. Usually 125 waterbody subsegments are monitored each month under the program. Under the monitoring schedule, approximately one-half of the state's waters are newly assessed for section 305(b) and section 303(d) listing purposes for each biennial cycle, with sampling occurring statewide each year. The 4-year cycle follows an initial 5-year rotation that covered all basins in the state according to the TMDL priorities. Monitoring allows LDEQ to determine whether any improvement has occurred in water quality after the TMDLs have been implemented. When LDEQ evaluates monitoring results at the end of each year, it may add waterbodies to or remove them from the section 303(d) list of impaired waterbodies.

In addition to ambient water quality sampling in the priority basins, LDEQ has increased compliance monitoring in those basins. The goal set by LDEQ was to inspect all those facilities on the list and to sample one-third of the minors and one-third of the majors.

5. Public Participation

Federal regulations require LDEQ to notify the public and seek comments concerning the TMDLs it prepares. This TMDL was developed under contract to LDEQ, and LDEQ will hold a public review period seeking comments, information, and data from the public and any other interested party. The notice for the public review period will be published in local and state newspapers and on LDEQ's electronic notification system. The TMDL report will be available on LDEQ's TMDL Web site at www.deq.louisiana.gov/portal/default.aspx?tabid=1563. The public review period will last for 30 days. LDEQ will review all comments received, and this TMDL might be revised to reflect comments if appropriate.

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Appendix A. Hardness, TSS, and Lead Monitoring Data

Table A-1. Hardness and total suspended solids data

Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique north of Basile, Louisiana	5	03/07/78	28.6	142
Bayou Nezpique north of Basile, Louisiana	5	04/11/78	104.4	
Bayou Nezpique north of Basile, Louisiana	5	06/13/78	31.6	154
Bayou Nezpique north of Basile, Louisiana	5	07/11/78	194	50
Bayou Nezpique north of Basile, Louisiana	5	08/15/78	108.2	34
Bayou Nezpique north of Basile, Louisiana	5	09/12/78	20	78
Bayou Nezpique north of Basile, Louisiana	5	10/10/78	78.2	42
Bayou Nezpique north of Basile, Louisiana	5	12/12/78	47.2	76
Bayou Nezpique north of Basile, Louisiana	5	01/09/79	12	14
Bayou Nezpique north of Basile, Louisiana	5	02/13/79	27	10
Bayou Nezpique north of Basile, Louisiana	5	04/17/79	17	
Bayou Nezpique north of Basile, Louisiana	5	10/09/79	27	144
Bayou Nezpique north of Basile, Louisiana	5	11/06/79	20	68
Bayou Nezpique north of Basile, Louisiana	5	12/10/79	267	66
Bayou Nezpique north of Basile, Louisiana	5	01/15/80	11	24
Bayou Nezpique north of Basile, Louisiana	5	02/12/80	11	28
Bayou Nezpique north of Basile, Louisiana	5	03/11/80	22.4	146
Bayou Nezpique north of Basile, Louisiana	5	04/15/80		50
Bayou Nezpique north of Basile, Louisiana	5	05/13/80	67	304
Bayou Nezpique north of Basile, Louisiana	5	06/10/80		98
Bayou Nezpique north of Basile, Louisiana	5	09/16/80	132	56
Bayou Nezpique north of Basile, Louisiana	5	10/14/80	141	14
Bayou Nezpique north of Basile, Louisiana	5	11/18/80	26	30
Bayou Nezpique north of Basile, Louisiana	5	12/09/80		222
Bayou Nezpique north of Basile, Louisiana	5	01/13/81	52	
Bayou Nezpique north of Basile, Louisiana	5	02/10/81	13	118
Bayou Nezpique north of Basile, Louisiana	5	03/10/81	32.6	42
Bayou Nezpique north of Basile, Louisiana	5	04/14/81	89.2	274
Bayou Nezpique north of Basile, Louisiana	5	05/12/81	6	152
Bayou Nezpique north of Basile, Louisiana	5	06/09/81	1	58
Bayou Nezpique north of Basile, Louisiana	5	07/14/81	18	100
Bayou Nezpique north of Basile, Louisiana	5	08/11/81	49	46
Bayou Nezpique north of Basile, Louisiana	5	09/15/81	46	68
Bayou Nezpique north of Basile, Louisiana	5	10/13/81	46	46
Bayou Nezpique north of Basile, Louisiana	5	11/17/81	22	16
Bayou Nezpique north of Basile, Louisiana	5	12/15/81	27	156
Bayou Nezpique north of Basile, Louisiana	5	02/09/82	10	132
Bayou Nezpique north of Basile, Louisiana	5	03/09/82	16.6	44
Bayou Nezpique north of Basile, Louisiana	5	04/13/82	58	310
Bayou Nezpique north of Basile, Louisiana	5	05/11/82	35.4	108
Bayou Nezpique north of Basile, Louisiana	5	06/15/82	52	52
Bayou Nezpique north of Basile, Louisiana	5	07/12/82	46.8	80
Bayou Nezpique north of Basile, Louisiana	5	08/10/82	29.2	156

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Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique north of Basile, Louisiana	5	09/13/82	17.2	14
Bayou Nezpique north of Basile, Louisiana	5	10/12/82	55.8	42
Bayou Nezpique north of Basile, Louisiana	5	11/16/82	63.2	1
Bayou Nezpique north of Basile, Louisiana	5	12/14/82	18	20
Bayou Nezpique north of Basile, Louisiana	5	01/11/83	12	38
Bayou Nezpique north of Basile, Louisiana	5	02/08/83	8.6	24
Bayou Nezpique north of Basile, Louisiana	5	03/15/83	27	46
Bayou Nezpique north of Basile, Louisiana	5	04/12/83	12.8	26
Bayou Nezpique north of Basile, Louisiana	5	05/10/83	72.4	116
Bayou Nezpique north of Basile, Louisiana	5	06/14/83	31	5.8
Bayou Nezpique north of Basile, Louisiana	5	07/12/83	41.4	48
Bayou Nezpique north of Basile, Louisiana	5	08/09/83	10	12
Bayou Nezpique north of Basile, Louisiana	5	09/13/83	29.4	56
Bayou Nezpique north of Basile, Louisiana	5	10/10/83	37.2	22
Bayou Nezpique north of Basile, Louisiana	5	11/15/83	42	32
Bayou Nezpique north of Basile, Louisiana	5	12/13/83	8.6	24
Bayou Nezpique north of Basile, Louisiana	5	01/10/84	17.8	148
Bayou Nezpique north of Basile, Louisiana	5	02/14/84	8.6	28
Bayou Nezpique north of Basile, Louisiana	5	03/12/84	20.4	72
Bayou Nezpique north of Basile, Louisiana	5	04/09/84	49	280
Bayou Nezpique north of Basile, Louisiana	5	05/13/84	36	104
Bayou Nezpique north of Basile, Louisiana	5	06/11/84	8.8	17
Bayou Nezpique north of Basile, Louisiana	5	07/10/84	28.4	70
Bayou Nezpique north of Basile, Louisiana	5	08/13/84		74
Bayou Nezpique north of Basile, Louisiana	5	09/10/84	61	24
Bayou Nezpique north of Basile, Louisiana	5	10/08/84	31.4	30
Bayou Nezpique north of Basile, Louisiana	5	11/13/84	23.4	14
Bayou Nezpique north of Basile, Louisiana	5	12/10/84	11	18
Bayou Nezpique north of Basile, Louisiana	5	01/14/85	27.4	10
Bayou Nezpique north of Basile, Louisiana	5	02/12/85	9	80
Bayou Nezpique north of Basile, Louisiana	5	03/11/85	25	60
Bayou Nezpique north of Basile, Louisiana	5	04/08/85	92	210
Bayou Nezpique north of Basile, Louisiana	5	05/13/85	64.2	62
Bayou Nezpique north of Basile, Louisiana	5	06/10/85	75.8	32
Bayou Nezpique north of Basile, Louisiana	5	07/08/85	32	90
Bayou Nezpique north of Basile, Louisiana	5	08/13/85	46.6	66
Bayou Nezpique north of Basile, Louisiana	5	09/10/85	18	4
Bayou Nezpique north of Basile, Louisiana	5	10/15/85	35.4	44
Bayou Nezpique north of Basile, Louisiana	5	11/19/85	16	56
Bayou Nezpique north of Basile, Louisiana	5	12/10/85	14	38
Bayou Nezpique north of Basile, Louisiana	5	01/14/86	17	28
Bayou Nezpique north of Basile, Louisiana	5	02/18/86	28	38
Bayou Nezpique north of Basile, Louisiana	5	03/18/86	24.6	154
Bayou Nezpique north of Basile, Louisiana	5	04/15/86		10
Bayou Nezpique north of Basile, Louisiana	5	05/13/86	59.1	88
Bayou Nezpique north of Basile, Louisiana	5	06/10/86	22.6	102

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Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique north of Basile, Louisiana	5	07/15/86	46.2	46
Bayou Nezpique north of Basile, Louisiana	5	08/12/86	24.7	68
Bayou Nezpique north of Basile, Louisiana	5	09/09/86	33.8	12
Bayou Nezpique north of Basile, Louisiana	5	10/14/86	31.8	56
Bayou Nezpique north of Basile, Louisiana	5	11/18/86	29.9	44
Bayou Nezpique north of Basile, Louisiana	5	12/09/86	18.3	88
Bayou Nezpique north of Basile, Louisiana	5	01/12/87	13.5	26
Bayou Nezpique north of Basile, Louisiana	5	02/16/87	20.6	160
Bayou Nezpique north of Basile, Louisiana	5	03/10/87	17.8	64
Bayou Nezpique north of Basile, Louisiana	5	04/14/87	67.7	172
Bayou Nezpique north of Basile, Louisiana	5	05/12/87	40.9	104
Bayou Nezpique north of Basile, Louisiana	5	06/09/87	41.6	80
Bayou Nezpique north of Basile, Louisiana	5	07/14/87	40.8	50
Bayou Nezpique north of Basile, Louisiana	5	08/11/87	21.7	62
Bayou Nezpique north of Basile, Louisiana	5	09/15/87	60.2	118
Bayou Nezpique north of Basile, Louisiana	5	10/12/87	55.7	22
Bayou Nezpique north of Basile, Louisiana	5	11/17/87	16.9	152
Bayou Nezpique north of Basile, Louisiana	5	12/15/87	20.1	56
Bayou Nezpique north of Basile, Louisiana	5	01/12/88	14.8	32
Bayou Nezpique north of Basile, Louisiana	5	02/09/88	9.3	30
Bayou Nezpique north of Basile, Louisiana	5	03/15/88	8.2	32
Bayou Nezpique north of Basile, Louisiana	5	04/12/88	23.2	72
Bayou Nezpique north of Basile, Louisiana	5	05/10/88	104	144
Bayou Nezpique north of Basile, Louisiana	5	06/13/88	86.7	88
Bayou Nezpique north of Basile, Louisiana	5	07/12/88	35.7	110
Bayou Nezpique north of Basile, Louisiana	5	08/09/88	63.7	58
Bayou Nezpique north of Basile, Louisiana	5	09/13/88	36.9	32
Bayou Nezpique north of Basile, Louisiana	5	10/11/88	22.9	190
Bayou Nezpique north of Basile, Louisiana	5	11/15/88	61.6	14
Bayou Nezpique north of Basile, Louisiana	5	12/12/88	18.8	84
Bayou Nezpique north of Basile, Louisiana	5	01/10/89	11	58
Bayou Nezpique north of Basile, Louisiana	5	02/14/89	25.1	32
Bayou Nezpique north of Basile, Louisiana	5	03/14/89	27.5	46
Bayou Nezpique north of Basile, Louisiana	5	04/11/89	109	220
Bayou Nezpique north of Basile, Louisiana	5	05/09/89	25.9	64
Bayou Nezpique north of Basile, Louisiana	5	06/13/89	16.3	96
Bayou Nezpique north of Basile, Louisiana	5	07/11/89	15.8	20
Bayou Nezpique north of Basile, Louisiana	5	08/15/89	33.2	32
Bayou Nezpique north of Basile, Louisiana	5	09/12/89	44	34
Bayou Nezpique north of Basile, Louisiana	5	10/10/89	61.7	16
Bayou Nezpique north of Basile, Louisiana	5	11/14/89	50.8	12
Bayou Nezpique north of Basile, Louisiana	5	12/11/89	20.3	76
Bayou Nezpique north of Basile, Louisiana	5	01/09/90	9.2	16
Bayou Nezpique north of Basile, Louisiana	5	02/13/90	14.4	68
Bayou Nezpique north of Basile, Louisiana	5	03/13/90	23	62
Bayou Nezpique north of Basile, Louisiana	5	04/10/90	67.4	

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Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique north of Basile, Louisiana	5	05/15/90	32.9	98
Bayou Nezpique north of Basile, Louisiana	5	06/12/90	64.7	68
Bayou Nezpique north of Basile, Louisiana	5	07/10/90	61.2	76
Bayou Nezpique north of Basile, Louisiana	5	08/14/90	60	96
Bayou Nezpique north of Basile, Louisiana	5	09/11/90	79.3	48
Bayou Nezpique north of Basile, Louisiana	5	10/16/90	23.4	62
Bayou Nezpique north of Basile, Louisiana	5	11/13/90	38	18
Bayou Nezpique north of Basile, Louisiana	5	12/10/90	18.5	58
Bayou Nezpique north of Basile, Louisiana	5	01/14/91	7.1	24
Bayou Nezpique north of Basile, Louisiana	5	02/05/91	18.1	314
Bayou Nezpique north of Basile, Louisiana	5	03/12/91	21.7	32
Bayou Nezpique north of Basile, Louisiana	5	04/16/91	10.7	42
Bayou Nezpique north of Basile, Louisiana	5	05/14/91	10	13
Bayou Nezpique north of Basile, Louisiana	5	06/11/91	27.4	108
Bayou Nezpique north of Basile, Louisiana	5	07/16/91	17	96
Bayou Nezpique north of Basile, Louisiana	5	08/13/91	28.3	62
Bayou Nezpique north of Basile, Louisiana	5	09/09/91	14.9	32
Bayou Nezpique north of Basile, Louisiana	5	10/15/91	34.7	21
Bayou Nezpique north of Basile, Louisiana	5	11/19/91	30	88
Bayou Nezpique north of Basile, Louisiana	5	12/10/91	19	44
Bayou Nezpique north of Basile, Louisiana	5	01/07/92	23	28
Bayou Nezpique north of Basile, Louisiana	5	02/11/92	9.4	51
Bayou Nezpique north of Basile, Louisiana	5	03/10/92	5.3	10
Bayou Nezpique north of Basile, Louisiana	5	04/07/92	43.2	236
Bayou Nezpique north of Basile, Louisiana	5	05/12/92	59.3	132
Bayou Nezpique north of Basile, Louisiana	5	06/16/92	37.3	138
Bayou Nezpique north of Basile, Louisiana	5	07/13/92	50	70
Bayou Nezpique north of Basile, Louisiana	5	08/11/92	47	29
Bayou Nezpique north of Basile, Louisiana	5	09/15/92	45.8	18
Bayou Nezpique north of Basile, Louisiana	5	10/13/92	44.9	12
Bayou Nezpique north of Basile, Louisiana	5	11/17/92	23	44
Bayou Nezpique north of Basile, Louisiana	5	12/15/92	17.3	104
Bayou Nezpique north of Basile, Louisiana	5	01/12/93	12.6	52
Bayou Nezpique north of Basile, Louisiana	5	02/08/93	22.3	24
Bayou Nezpique north of Basile, Louisiana	5	03/09/93	10.7	32
Bayou Nezpique north of Basile, Louisiana	5	04/13/93	9.7	22
Bayou Nezpique north of Basile, Louisiana	5	05/11/93	30	58
Bayou Nezpique north of Basile, Louisiana	5	06/15/93	78.2	40
Bayou Nezpique north of Basile, Louisiana	5	07/13/93	56.4	84
Bayou Nezpique north of Basile, Louisiana	5	08/10/93	42.4	58
Bayou Nezpique north of Basile, Louisiana	5	09/14/93	65.2	15
Bayou Nezpique north of Basile, Louisiana	5	10/12/93	46	17
Bayou Nezpique north of Basile, Louisiana	5	11/16/93	14.3	58
Bayou Nezpique north of Basile, Louisiana	5	12/14/93	17.2	44
Bayou Nezpique north of Basile, Louisiana	5	01/11/94	29.4	37
Bayou Nezpique north of Basile, Louisiana	5	02/08/94	12.1	34

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Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique north of Basile, Louisiana	5	03/15/94	23.4	86
Bayou Nezpique north of Basile, Louisiana	5	04/12/94	31.3	210
Bayou Nezpique north of Basile, Louisiana	5	05/10/94	52.9	139
Bayou Nezpique north of Basile, Louisiana	5	06/14/94	23.7	104
Bayou Nezpique north of Basile, Louisiana	5	07/12/94	14.7	57
Bayou Nezpique north of Basile, Louisiana	5	08/09/94	30.4	168
Bayou Nezpique north of Basile, Louisiana	5	09/12/94	35.7	33
Bayou Nezpique north of Basile, Louisiana	5	10/11/94	70	19
Bayou Nezpique north of Basile, Louisiana	5	11/15/94	15.3	27
Bayou Nezpique north of Basile, Louisiana	5	12/13/94	16.9	36
Bayou Nezpique north of Basile, Louisiana	5	01/10/95	26.3	64
Bayou Nezpique north of Basile, Louisiana	5	02/14/95	17.5	48
Bayou Nezpique north of Basile, Louisiana	5	03/14/95	6.9	50
Bayou Nezpique north of Basile, Louisiana	5	04/04/95	24.9	80
Bayou Nezpique north of Basile, Louisiana	5	05/09/95	26.2	248
Bayou Nezpique north of Basile, Louisiana	5	06/13/95	48.1	52
Bayou Nezpique north of Basile, Louisiana	5	07/11/95	40.7	115
Bayou Nezpique north of Basile, Louisiana	5	08/15/95	19.5	119
Bayou Nezpique north of Basile, Louisiana	5	09/12/95	62.8	25
Bayou Nezpique north of Basile, Louisiana	5	10/10/95	19.2	50
Bayou Nezpique north of Basile, Louisiana	5	11/14/95	21.2	66
Bayou Nezpique north of Basile, Louisiana	5	12/12/95	17.6	40
Bayou Nezpique north of Basile, Louisiana	5	01/09/96	20.5	57
Bayou Nezpique north of Basile, Louisiana	5	02/13/96	19.9	24
Bayou Nezpique north of Basile, Louisiana	5	03/12/96	45.1	38
Bayou Nezpique north of Basile, Louisiana	5	04/09/96	79.6	220
Bayou Nezpique north of Basile, Louisiana	5	05/14/96	97.6	228
Bayou Nezpique north of Basile, Louisiana	5	06/11/96	50.2	104
Bayou Nezpique north of Basile, Louisiana	5	07/09/96	83	66
Bayou Nezpique north of Basile, Louisiana	5	08/13/96	37.8	76
Bayou Nezpique north of Basile, Louisiana	5	09/10/96	47.2	26
Bayou Nezpique north of Basile, Louisiana	5	10/15/96	47.2	14.7
Bayou Nezpique north of Basile, Louisiana	5	11/19/96	7	107
Bayou Nezpique north of Basile, Louisiana	5	12/10/96	41	20
Bayou Nezpique north of Basile, Louisiana	5	01/07/97	21.2	190
Bayou Nezpique north of Basile, Louisiana	5	02/18/97	6.7	22
Bayou Nezpique north of Basile, Louisiana	5	03/11/97	25.6	97
Bayou Nezpique north of Basile, Louisiana	5	04/15/97	26.5	94
Bayou Nezpique north of Basile, Louisiana	5	05/13/97	50.4	63.9
Bayou Nezpique north of Basile, Louisiana	5	06/10/97	27.8	102
Bayou Nezpique north of Basile, Louisiana	5	07/15/97	66.5	99.9
Bayou Nezpique north of Basile, Louisiana	5	08/12/97	44.8	81.9
Bayou Nezpique north of Basile, Louisiana	5	09/09/97	58.5	35
Bayou Nezpique north of Basile, Louisiana	5	10/14/97	40.7	46
Bayou Nezpique north of Basile, Louisiana	5	11/18/97	42.2	4
Bayou Nezpique north of Basile, Louisiana	5	12/09/97	19.2	50

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Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique north of Basile, Louisiana	5	01/13/98	8.8	6
Bayou Nezpique north of Basile, Louisiana	5	02/10/98	21.6	42
Bayou Nezpique north of Basile, Louisiana	5	03/10/98	9.7	40
Bayou Nezpique north of Basile, Louisiana	5	04/14/98	78.4	200
Bayou Nezpique north of Basile, Louisiana	5	05/12/98	88.8	70
Bayou Nezpique near Jennings, Louisiana	309	01/15/91	6	15
Bayou Nezpique near Jennings, Louisiana	309	03/12/91	17.5	22
Bayou Nezpique near Jennings, Louisiana	309	05/14/91	9.7	11
Bayou Nezpique near Jennings, Louisiana	309	07/16/91	18	8
Bayou Nezpique near Jennings, Louisiana	309	09/10/91	12.3	28
Bayou Nezpique near Jennings, Louisiana	309	11/15/91	20.8	38
Bayou Nezpique near Jennings, Louisiana	309	01/07/92	15.6	7
Bayou Nezpique near Jennings, Louisiana	309	03/10/92	6.3	14
Bayou Nezpique near Jennings, Louisiana	309	05/11/92	50.7	32
Bayou Nezpique near Jennings, Louisiana	309	07/14/92	27.5	19
Bayou Nezpique near Jennings, Louisiana	309	09/15/92	44.2	12
Bayou Nezpique near Jennings, Louisiana	309	11/17/92	22.6	42
Bayou Nezpique near Jennings, Louisiana	309	01/12/93	14.6	17
Bayou Nezpique near Jennings, Louisiana	309	03/09/93	21.6	16
Bayou Nezpique near Jennings, Louisiana	309	05/11/93	13	26
Bayou Nezpique near Jennings, Louisiana	309	07/13/93	87.2	19
Bayou Nezpique near Jennings, Louisiana	309	09/14/93	51.9	4
Bayou Nezpique near Jennings, Louisiana	309	11/16/93	28.5	19
Bayou Nezpique near Jennings, Louisiana	309	01/11/94	26.5	29
Bayou Nezpique near Jennings, Louisiana	309	03/15/94	13.4	48
Bayou Nezpique near Jennings, Louisiana	309	05/11/94	35.4	47
Bayou Nezpique near Jennings, Louisiana	309	07/12/94	38.9	24
Bayou Nezpique near Jennings, Louisiana	309	09/13/94	24.1	17
Bayou Nezpique near Jennings, Louisiana	309	11/15/94	22.1	8
Bayou Nezpique near Jennings, Louisiana	309	01/10/95	19.7	36
Bayou Nezpique near Jennings, Louisiana	309	03/14/95	13.8	24
Bayou Nezpique near Jennings, Louisiana	309	05/09/95	26.4	18
Bayou Nezpique near Jennings, Louisiana	309	07/11/95	25.6	29
Bayou Nezpique near Jennings, Louisiana	309	09/12/95	28.2	10
Bayou Nezpique near Jennings, Louisiana	309	11/13/95	26	30
Bayou Nezpique near Jennings, Louisiana	309	01/08/96	24.8	32
Bayou Nezpique near Jennings, Louisiana	309	03/11/96	30.3	32
Bayou Nezpique near Jennings, Louisiana	309	05/13/96	757	3
Bayou Nezpique near Jennings, Louisiana	309	07/09/96	50.6	20
Bayou Nezpique near Jennings, Louisiana	309	09/09/96	24.8	13
Bayou Nezpique near Jennings, Louisiana	309	11/18/96	15.2	57
Bayou Nezpique near Jennings, Louisiana	309	01/07/97	20.4	20.7
Bayou Nezpique near Jennings, Louisiana	309	03/10/97	13.9	14
Bayou Nezpique near Jennings, Louisiana	309	05/12/97	27.3	6
Bayou Nezpique near Jennings, Louisiana	309	07/14/97	22.3	20
Bayou Nezpique near Jennings, Louisiana	309	09/08/97	35.9	5

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Site	Site	Collection date ^a	Hardness (mg/L)	TSS (mg/L)
Bayou Nezpique near Jennings, Louisiana	309	11/18/97	30.3	6
Bayou Nezpique near Jennings, Louisiana	309	01/12/98	6.8	18
Bayou Nezpique near Jennings, Louisiana	309	03/09/98	17	48
Bayou Nezpique near Jennings, Louisiana	309	05/11/98	50.4	140
Bayou Nezpique east of Jennings, Louisiana	651	06/23/98		14
Bayou Nezpique east of Jennings, Louisiana	651	07/14/98		11
Bayou Nezpique east of Jennings, Louisiana	651	07/28/98		24
Bayou Nezpique east of Jennings, Louisiana	651	08/11/98		9
Bayou Nezpique east of Jennings, Louisiana	651	08/25/98		6
Bayou Nezpique east of Jennings, Louisiana	651	09/08/98		13
Bayou Nezpique east of Jennings, Louisiana	651	09/22/98		7
Bayou Nezpique east of Jennings, Louisiana	651	10/13/98	22.7	13
Bayou Nezpique east of Jennings, Louisiana	651	10/28/98	26.7	16
Bayou Nezpique east of Jennings, Louisiana	651	11/09/98	27.2	19
Bayou Nezpique east of Jennings, Louisiana	651	11/23/98	18.8	18
Bayou Nezpique east of Jennings, Louisiana	651	12/15/98	19.6	45
Bayou Nezpique east of Jennings, Louisiana	651	01/07/03	12.6	30.4
Bayou Nezpique east of Jennings, Louisiana	651	02/10/03	14	43
Bayou Nezpique east of Jennings, Louisiana	651	03/18/03	26.4	62.4
Bayou Nezpique east of Jennings, Louisiana	651	04/14/03	32.8	41
Bayou Nezpique east of Jennings, Louisiana	651	05/12/03	78.3	14
Bayou Nezpique east of Jennings, Louisiana	651	06/09/03	76.8	16.7
Bayou Nezpique east of Jennings, Louisiana	651	07/14/03	48.4	14
Bayou Nezpique east of Jennings, Louisiana	651	08/11/03	40.5	16
Bayou Nezpique east of Jennings, Louisiana	651	09/15/03	24.7	8.7
Bayou Nezpique east of Jennings, Louisiana	651	10/13/03	23.7	7.3
Bayou Nezpique east of Jennings, Louisiana	651	11/17/03	36.2	8.7
Bayou Nezpique east of Jennings, Louisiana	651	12/08/03	26.6	15
Bayou Nezpique east of Jennings, Louisiana	651	01/17/07	16	10
Bayou Nezpique east of Jennings, Louisiana	651	02/13/07	20.9	16.7
Bayou Nezpique east of Jennings, Louisiana	651	03/14/07	32.9	20
Bayou Nezpique east of Jennings, Louisiana	651	04/02/07	51.7	9
Bayou Nezpique east of Jennings, Louisiana	651	04/25/07	32.1	18.5
Bayou Nezpique east of Jennings, Louisiana	651	05/16/07	56.6	15.5
Bayou Nezpique east of Jennings, Louisiana	651	06/06/07	51	16.5
Bayou Nezpique east of Jennings, Louisiana	651	06/27/07	43.7	10
Bayou Nezpique east of Jennings, Louisiana	651	07/25/07	44.2	13
Bayou Nezpique east of Jennings, Louisiana	651	08/15/07	37.1	13
Bayou Nezpique east of Jennings, Louisiana	651	09/11/07	46.4	14
Bayou Nezpique east of Jennings, Louisiana	651	10/02/07	26.8	5

a. Data from before 2005 were not included in TMDL analysis.

Table A-2. Hardness summary statistics at station 651

Statistic	Hardness	TSS
Minimum (mg/L)	16	5
Maximum (mg/L)	56.6	20
Average (mg/L)	38.28	13.43
Count	12	12

a. Data from before 2005 were not included in analysis.

Table A-3. Dissolved lead data

Site	Station number	Collection date	MDL (µg/L)	Type	Result (µg/L) ^a
Bayou Nezpique north of Basile, Louisiana	5	4/11/78			32
Bayou Nezpique north of Basile, Louisiana	5	6/13/78			10
Bayou Nezpique north of Basile, Louisiana	5	7/11/78			10
Bayou Nezpique north of Basile, Louisiana	5	8/15/78			1
Bayou Nezpique north of Basile, Louisiana	5	9/12/78			40
Bayou Nezpique north of Basile, Louisiana	5	10/10/78			4
Bayou Nezpique north of Basile, Louisiana	5	12/12/78			6.5
Bayou Nezpique north of Basile, Louisiana	5	1/9/79			1.8
Bayou Nezpique north of Basile, Louisiana	5	2/13/79			4.9
Bayou Nezpique north of Basile, Louisiana	5	4/17/79			20.7
Bayou Nezpique north of Basile, Louisiana	5	5/15/79			7
Bayou Nezpique north of Basile, Louisiana	5	6/11/79			12.6
Bayou Nezpique north of Basile, Louisiana	5	8/14/79			18.4
Bayou Nezpique north of Basile, Louisiana	5	9/11/79			9.5
Bayou Nezpique north of Basile, Louisiana	5	10/9/79			4.3
Bayou Nezpique north of Basile, Louisiana	5	11/6/79			32.7
Bayou Nezpique north of Basile, Louisiana	5	12/10/79			166
Bayou Nezpique north of Basile, Louisiana	5	1/15/80			56.6
Bayou Nezpique north of Basile, Louisiana	5	2/12/80			29.8
Bayou Nezpique north of Basile, Louisiana	5	3/11/80			37.6
Bayou Nezpique north of Basile, Louisiana	5	4/15/80			35.2
Bayou Nezpique north of Basile, Louisiana	5	5/13/80			83.4
Bayou Nezpique north of Basile, Louisiana	5	6/10/80			5.4
Bayou Nezpique north of Basile, Louisiana	5	8/12/80			6.4
Bayou Nezpique north of Basile, Louisiana	5	9/16/80			7.8
Bayou Nezpique north of Basile, Louisiana	5	10/14/80			2.6
Bayou Nezpique north of Basile, Louisiana	5	11/18/80			5.5
Bayou Nezpique north of Basile, Louisiana	5	12/9/80			4.8
Bayou Nezpique north of Basile, Louisiana	5	1/13/81			39.5
Bayou Nezpique north of Basile, Louisiana	5	2/10/81			7.1
Bayou Nezpique north of Basile, Louisiana	5	3/10/81			18.5
Bayou Nezpique north of Basile, Louisiana	5	4/14/81			36.1
Bayou Nezpique north of Basile, Louisiana	5	5/12/81			13.5
Bayou Nezpique north of Basile, Louisiana	5	6/9/81			3.9
Bayou Nezpique north of Basile, Louisiana	5	7/14/81			3.8
Bayou Nezpique north of Basile, Louisiana	5	8/11/81			3.9
Bayou Nezpique north of Basile, Louisiana	5	9/15/81			4.1
Bayou Nezpique north of Basile, Louisiana	5	10/13/81			6.2
Bayou Nezpique north of Basile, Louisiana	5	11/17/81			34.9
Bayou Nezpique north of Basile, Louisiana	5	12/15/81			13.6
Bayou Nezpique north of Basile, Louisiana	5	2/9/82			7.2
Bayou Nezpique north of Basile, Louisiana	5	3/9/82			11.3
Bayou Nezpique north of Basile, Louisiana	5	4/13/82			54.5
Bayou Nezpique north of Basile, Louisiana	5	5/11/82			10.7
Bayou Nezpique north of Basile, Louisiana	5	6/15/82			5.2
Bayou Nezpique north of Basile, Louisiana	5	7/12/82			20.8

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Site	Station number	Collection date	MDL (µg/L)	Type	Result (µg/L) ^a
Bayou Nezpique north of Basile, Louisiana	5	8/10/82			19.6
Bayou Nezpique north of Basile, Louisiana	5	9/13/82			5.6
Bayou Nezpique north of Basile, Louisiana	5	10/12/82			16.9
Bayou Nezpique north of Basile, Louisiana	5	1/11/83			43.8
Bayou Nezpique north of Basile, Louisiana	5	2/8/83			4
Bayou Nezpique north of Basile, Louisiana	5	3/15/83			57.7
Bayou Nezpique north of Basile, Louisiana	5	4/12/83			160
Bayou Nezpique north of Basile, Louisiana	5	5/10/83			103.3
Bayou Nezpique north of Basile, Louisiana	5	6/14/83			24.5
Bayou Nezpique north of Basile, Louisiana	5	7/12/83			306.2
Bayou Nezpique north of Basile, Louisiana	5	8/9/83			5.4
Bayou Nezpique north of Basile, Louisiana	5	9/13/83			6.2
Bayou Nezpique north of Basile, Louisiana	5	10/10/83			4.9
Bayou Nezpique north of Basile, Louisiana	5	11/15/83			3.5
Bayou Nezpique north of Basile, Louisiana	5	12/13/83			2.1
Bayou Nezpique north of Basile, Louisiana	5	1/10/84			16.2
Bayou Nezpique north of Basile, Louisiana	5	2/14/84			5.3
Bayou Nezpique north of Basile, Louisiana	5	3/12/84			8.5
Bayou Nezpique north of Basile, Louisiana	5	4/9/84			49.3
Bayou Nezpique north of Basile, Louisiana	5	5/13/84			13.2
Bayou Nezpique north of Basile, Louisiana	5	6/11/84			2.1
Bayou Nezpique north of Basile, Louisiana	5	7/10/84			2.5
Bayou Nezpique north of Basile, Louisiana	5	8/13/84			3.8
Bayou Nezpique north of Basile, Louisiana	5	9/10/84			4.3
Bayou Nezpique north of Basile, Louisiana	5	10/8/84			4.1
Bayou Nezpique north of Basile, Louisiana	5	11/13/84			4.1
Bayou Nezpique north of Basile, Louisiana	5	12/10/84			4.2
Bayou Nezpique north of Basile, Louisiana	5	1/14/85			4.6
Bayou Nezpique north of Basile, Louisiana	5	2/12/85			4.8
Bayou Nezpique north of Basile, Louisiana	5	3/11/85			11.5
Bayou Nezpique north of Basile, Louisiana	5	4/8/85			90.7
Bayou Nezpique north of Basile, Louisiana	5	5/13/85			12.1
Bayou Nezpique north of Basile, Louisiana	5	6/10/85			5.1
Bayou Nezpique north of Basile, Louisiana	5	7/8/85			5.7
Bayou Nezpique north of Basile, Louisiana	5	8/13/85			5.4
Bayou Nezpique north of Basile, Louisiana	5	9/10/85			0.2
Bayou Nezpique north of Basile, Louisiana	5	10/15/85			4.9
Bayou Nezpique north of Basile, Louisiana	5	11/19/85			3.7
Bayou Nezpique north of Basile, Louisiana	5	12/10/85			3.4
Bayou Nezpique north of Basile, Louisiana	5	1/14/86			4.6
Bayou Nezpique north of Basile, Louisiana	5	2/18/86			4.5
Bayou Nezpique north of Basile, Louisiana	5	3/18/86			13.5
Bayou Nezpique north of Basile, Louisiana	5	4/15/86			23.9
Bayou Nezpique north of Basile, Louisiana	5	5/13/86			15.8
Bayou Nezpique north of Basile, Louisiana	5	6/10/86			11.5
Bayou Nezpique north of Basile, Louisiana	5	7/15/86			5.6
Bayou Nezpique north of Basile, Louisiana	5	9/9/86			0.8
Bayou Nezpique north of Basile, Louisiana	5	11/18/86			4.8
Bayou Nezpique north of Basile, Louisiana	5	1/12/87			5.5
Bayou Nezpique north of Basile, Louisiana	5	3/10/87			4.7
Bayou Nezpique north of Basile, Louisiana	5	4/14/87			6.9
Bayou Nezpique north of Basile, Louisiana	5	5/12/87			8.2
Bayou Nezpique north of Basile, Louisiana	5	7/14/87			4.2
Bayou Nezpique north of Basile, Louisiana	5	8/11/87			2.6
Bayou Nezpique north of Basile, Louisiana	5	9/15/87			9.9
Bayou Nezpique north of Basile, Louisiana	5	11/17/87			8.4

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Site	Station number	Collection date	MDL (µg/L)	Type	Result (µg/L) ^a
Bayou Nezpique north of Basile, Louisiana	5	1/12/88			4.7
Bayou Nezpique north of Basile, Louisiana	5	3/15/88			3.6
Bayou Nezpique north of Basile, Louisiana	5	5/10/88			17.9
Bayou Nezpique north of Basile, Louisiana	5	7/12/88			4
Bayou Nezpique north of Basile, Louisiana	5	9/13/88			4.8
Bayou Nezpique north of Basile, Louisiana	5	10/11/88			4.5
Bayou Nezpique north of Basile, Louisiana	5	11/15/88			3.5
Bayou Nezpique north of Basile, Louisiana	5	1/10/89			5
Bayou Nezpique north of Basile, Louisiana	5	3/14/89			4.8
Bayou Nezpique north of Basile, Louisiana	5	5/9/89			9.3
Bayou Nezpique north of Basile, Louisiana	5	7/11/89			0.9
Bayou Nezpique north of Basile, Louisiana	5	9/12/89			3.1
Bayou Nezpique north of Basile, Louisiana	5	11/14/89			3.8
Bayou Nezpique north of Basile, Louisiana	5	1/9/90			3.2
Bayou Nezpique north of Basile, Louisiana	5	3/13/90			6.4
Bayou Nezpique north of Basile, Louisiana	5	5/15/90			9.6
Bayou Nezpique north of Basile, Louisiana	5	7/10/90			4.5
Bayou Nezpique north of Basile, Louisiana	5	9/11/90			1.9
Bayou Nezpique north of Basile, Louisiana	5	11/13/90			5.4
Bayou Nezpique north of Basile, Louisiana	5	2/5/91		Filtered	0.5
Bayou Nezpique north of Basile, Louisiana	5	3/12/91		Filtered	16.3
Bayou Nezpique north of Basile, Louisiana	5	4/16/91		Filtered	1.8
Bayou Nezpique north of Basile, Louisiana	5	5/14/91		Filtered	2.7
Bayou Nezpique north of Basile, Louisiana	5	6/11/91		Filtered	0.6
Bayou Nezpique north of Basile, Louisiana	5	7/16/91		Filtered	1.1
Bayou Nezpique north of Basile, Louisiana	5	8/13/91		Filtered	1.8
Bayou Nezpique north of Basile, Louisiana	5	9/9/91		Filtered	1.2
Bayou Nezpique north of Basile, Louisiana	5	10/15/91		Filtered	0.5
Bayou Nezpique north of Basile, Louisiana	5	11/19/91		Filtered	0.3
Bayou Nezpique north of Basile, Louisiana	5	12/10/91		Filtered	1.8
Bayou Nezpique north of Basile, Louisiana	5	1/7/92		Filtered	1.8
Bayou Nezpique north of Basile, Louisiana	5	2/11/92		Filtered	0.5
Bayou Nezpique north of Basile, Louisiana	5	3/10/92		Filtered	2.8
Bayou Nezpique north of Basile, Louisiana	5	4/7/92		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	5/12/92		Filtered	0.5
Bayou Nezpique north of Basile, Louisiana	5	6/16/92		Filtered	0.7
Bayou Nezpique north of Basile, Louisiana	5	7/13/92		Filtered	1.6
Bayou Nezpique north of Basile, Louisiana	5	8/11/92		Filtered	0.7
Bayou Nezpique north of Basile, Louisiana	5	9/15/92		Filtered	1
Bayou Nezpique north of Basile, Louisiana	5	10/13/92		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	11/17/92		Filtered	0.9
Bayou Nezpique north of Basile, Louisiana	5	12/15/92		Filtered	0.7
Bayou Nezpique north of Basile, Louisiana	5	1/12/93		Filtered	1.6
Bayou Nezpique north of Basile, Louisiana	5	2/8/93		Filtered	2.9
Bayou Nezpique north of Basile, Louisiana	5	3/9/93		Filtered	0.8
Bayou Nezpique north of Basile, Louisiana	5	4/13/93		Filtered	1
Bayou Nezpique north of Basile, Louisiana	5	5/11/93		Filtered	1.4
Bayou Nezpique north of Basile, Louisiana	5	6/15/93		Filtered	2.3
Bayou Nezpique north of Basile, Louisiana	5	7/13/93		Filtered	1.7
Bayou Nezpique north of Basile, Louisiana	5	8/10/93		Filtered	4.2
Bayou Nezpique north of Basile, Louisiana	5	9/14/93		Filtered	3.2
Bayou Nezpique north of Basile, Louisiana	5	10/12/93		Filtered	0.6
Bayou Nezpique north of Basile, Louisiana	5	11/16/93		Filtered	1.4
Bayou Nezpique north of Basile, Louisiana	5	12/14/93		Filtered	1.3
Bayou Nezpique north of Basile, Louisiana	5	1/11/94		Filtered	3
Bayou Nezpique north of Basile, Louisiana	5	2/8/94		Filtered	1.2
Bayou Nezpique north of Basile, Louisiana	5	3/15/94		Filtered	2.4
Bayou Nezpique north of Basile, Louisiana	5	4/12/94		Filtered	1.5

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Site	Station number	Collection date	MDL (µg/L)	Type	Result (µg/L) ^a
Bayou Nezpique north of Basile, Louisiana	5	5/10/94		Filtered	4.5
Bayou Nezpique north of Basile, Louisiana	5	6/14/94		Filtered	1
Bayou Nezpique north of Basile, Louisiana	5	7/12/94		Filtered	2.9
Bayou Nezpique north of Basile, Louisiana	5	8/9/94		Filtered	2.8
Bayou Nezpique north of Basile, Louisiana	5	9/12/94		Filtered	5.9
Bayou Nezpique north of Basile, Louisiana	5	10/11/94		Filtered	0.8
Bayou Nezpique north of Basile, Louisiana	5	11/15/94		Filtered	1.1
Bayou Nezpique north of Basile, Louisiana	5	12/13/94		Filtered	1.5
Bayou Nezpique north of Basile, Louisiana	5	1/10/95		Filtered	1.5
Bayou Nezpique north of Basile, Louisiana	5	2/14/95		Filtered	1.4
Bayou Nezpique north of Basile, Louisiana	5	3/14/95		Filtered	1.2
Bayou Nezpique north of Basile, Louisiana	5	4/4/95		Filtered	1
Bayou Nezpique north of Basile, Louisiana	5	6/13/95		Filtered	0.4
Bayou Nezpique north of Basile, Louisiana	5	7/11/95		Filtered	0.3
Bayou Nezpique north of Basile, Louisiana	5	8/15/95		Filtered	0.5
Bayou Nezpique north of Basile, Louisiana	5	9/12/95		Filtered	0.2
Bayou Nezpique north of Basile, Louisiana	5	10/10/95		Filtered	1.4
Bayou Nezpique north of Basile, Louisiana	5	11/14/95		Filtered	1.8
Bayou Nezpique north of Basile, Louisiana	5	12/12/95		Filtered	1.2
Bayou Nezpique north of Basile, Louisiana	5	1/9/96		Filtered	2.3
Bayou Nezpique north of Basile, Louisiana	5	2/13/96		Filtered	3
Bayou Nezpique north of Basile, Louisiana	5	3/12/96		Filtered	0.9
Bayou Nezpique north of Basile, Louisiana	5	4/9/96		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	5/14/96		Filtered	1.2
Bayou Nezpique north of Basile, Louisiana	5	6/11/96		Filtered	1.2
Bayou Nezpique north of Basile, Louisiana	5	7/9/96		Filtered	1.1
Bayou Nezpique north of Basile, Louisiana	5	8/13/96		Filtered	0.7
Bayou Nezpique north of Basile, Louisiana	5	9/10/96		Filtered	0.9
Bayou Nezpique north of Basile, Louisiana	5	10/15/96		Filtered	1.4
Bayou Nezpique north of Basile, Louisiana	5	11/19/96		Filtered	0.5
Bayou Nezpique north of Basile, Louisiana	5	12/10/96		Filtered	0.2
Bayou Nezpique north of Basile, Louisiana	5	1/7/97		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	2/18/97		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	3/11/97		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	4/15/97		Filtered	2
Bayou Nezpique north of Basile, Louisiana	5	5/13/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	6/10/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	7/15/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	8/12/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	9/9/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	10/14/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	11/18/97		Filtered	2.5
Bayou Nezpique north of Basile, Louisiana	5	12/9/97		Filtered	5
Bayou Nezpique north of Basile, Louisiana	5	1/13/98		Filtered	5
Bayou Nezpique north of Basile, Louisiana	5	2/10/98		Filtered	5
Bayou Nezpique north of Basile, Louisiana	5	3/10/98		Filtered	5
Bayou Nezpique north of Basile, Louisiana	5	4/14/98		Filtered	30.96
Bayou Nezpique north of Basile, Louisiana	5	5/12/98		Filtered	5
Bayou Nezpique near Jennings, Louisiana	309	1/15/91		Filtered	2.2
Bayou Nezpique near Jennings, Louisiana	309	3/12/91		Filtered	0.6
Bayou Nezpique near Jennings, Louisiana	309	5/14/91		Filtered	1.5
Bayou Nezpique near Jennings, Louisiana	309	7/16/91		Filtered	1.3
Bayou Nezpique near Jennings, Louisiana	309	9/10/91		Filtered	0.3
Bayou Nezpique near Jennings, Louisiana	309	11/15/91		Filtered	2.3
Bayou Nezpique near Jennings, Louisiana	309	1/7/92		Filtered	1.4
Bayou Nezpique near Jennings, Louisiana	309	3/10/92		Filtered	0.3
Bayou Nezpique near Jennings, Louisiana	309	5/11/92		Filtered	5.2
Bayou Nezpique near Jennings, Louisiana	309	7/14/92		Filtered	0.5
Bayou Nezpique near Jennings, Louisiana	309	9/15/92		Filtered	1.6

DRAFT—Bayou Nezpique (Subsegment 050301) Dissolved Lead TMDL
 Origination Date: August 12, 2010

Site	Station number	Collection date	MDL (µg/L)	Type	Result (µg/L) ^a
Bayou Nezpique near Jennings, Louisiana	309	11/17/92		Filtered	2.4
Bayou Nezpique near Jennings, Louisiana	309	1/12/93		Filtered	1.4
Bayou Nezpique near Jennings, Louisiana	309	3/9/93		Filtered	2
Bayou Nezpique near Jennings, Louisiana	309	5/11/93		Filtered	2.3
Bayou Nezpique near Jennings, Louisiana	309	7/13/93		Filtered	1.5
Bayou Nezpique near Jennings, Louisiana	309	9/14/93		Filtered	0.3
Bayou Nezpique near Jennings, Louisiana	309	11/16/93		Filtered	0.8
Bayou Nezpique near Jennings, Louisiana	309	1/11/94		Filtered	0.5
Bayou Nezpique near Jennings, Louisiana	309	3/15/94		Filtered	1.3
Bayou Nezpique near Jennings, Louisiana	309	5/11/94		Filtered	1.7
Bayou Nezpique near Jennings, Louisiana	309	7/12/94		Filtered	4.5
Bayou Nezpique near Jennings, Louisiana	309	9/13/94		Filtered	0.7
Bayou Nezpique near Jennings, Louisiana	309	11/15/94		Filtered	0.5
Bayou Nezpique near Jennings, Louisiana	309	1/10/95		Filtered	1.2
Bayou Nezpique near Jennings, Louisiana	309	3/14/95		Filtered	2.9
Bayou Nezpique near Jennings, Louisiana	309	7/11/95		Filtered	1.9
Bayou Nezpique near Jennings, Louisiana	309	9/12/95		Filtered	0.3
Bayou Nezpique near Jennings, Louisiana	309	11/13/95		Filtered	0.3
Bayou Nezpique near Jennings, Louisiana	309	1/8/96		Filtered	0.6
Bayou Nezpique near Jennings, Louisiana	309	3/11/96		Filtered	0.6
Bayou Nezpique near Jennings, Louisiana	309	5/13/96		Filtered	4.2
Bayou Nezpique near Jennings, Louisiana	309	7/9/96		Filtered	0.6
Bayou Nezpique near Jennings, Louisiana	309	9/9/96		Filtered	0.6
Bayou Nezpique near Jennings, Louisiana	309	11/18/96		Filtered	2.2
Bayou Nezpique near Jennings, Louisiana	309	1/7/97		Filtered	2
Bayou Nezpique near Jennings, Louisiana	309	3/10/97		Filtered	2
Bayou Nezpique near Jennings, Louisiana	309	5/12/97		Filtered	2.5
Bayou Nezpique near Jennings, Louisiana	309	7/14/97		Filtered	2.5
Bayou Nezpique near Jennings, Louisiana	309	9/8/97		Filtered	2.5
Bayou Nezpique near Jennings, Louisiana	309	11/18/97		Filtered	2.5
Bayou Nezpique east of Jennings, Louisiana	651	6/23/98		Filtered	5
Bayou Nezpique east of Jennings, Louisiana	651	7/28/98		Filtered	5
Bayou Nezpique east of Jennings, Louisiana	651	8/25/98		Filtered	5
Bayou Nezpique east of Jennings, Louisiana	651	9/22/98		Filtered	5
Bayou Nezpique east of Jennings, Louisiana	651	10/28/98		Filtered	5
Bayou Nezpique east of Jennings, Louisiana	651	11/23/98		Filtered	5
Bayou Nezpique east of Jennings, Louisiana	651	1/7/03		Filtered	0.77
Bayou Nezpique east of Jennings, Louisiana	651	4/14/03		Filtered	0.51
Bayou Nezpique east of Jennings, Louisiana	651	7/14/03		Filtered	1.96
Bayou Nezpique east of Jennings, Louisiana	651	12/15/03		Filtered	0.58
Bayou Nezpique east of Jennings, Louisiana	651	1/17/07		Filtered	0.91
Bayou Nezpique east of Jennings, Louisiana	651	4/2/07		Filtered	2.05
Bayou Nezpique east of Jennings, Louisiana	651	6/6/07		Filtered	1.16
Bayou Nezpique east of Jennings, Louisiana	651	8/15/07		Filtered	1.2

Notes: MDL = method detection limit

a. Exceedances of the calculated standard are bold. Data from before 2005 were not included in TMDL analysis.

Table A-4. Dissolved lead summary statistics at station 651

Statistic	Value ^a
Minimum (µg/L)	0.91
Maximum (µg/L)	2.05
Average (µg/L)	1.33
Count	4
Percentage of data that violate the standard	100

a. Data from before 2005 were not included in analysis.